

Title (en)
PUNCHING TOOL, MACHINE TOOL COMPRISING SUCH PUNCHING TOOL AND METHOD FOR CHECKING THE COUNTERPART OF AN ALIGNEMENT RING WITH A PUNCH

Title (de)
STANZWERKZEUG, WERKZEUGMASCHINE MIT EINEM SOLCHEN STANZWERKZEUG UND VERFAHREN ZUM PRÜFEN DER ZUGEHÖRIGKEIT EINES JUSTIERRINGS ZU EINEM STANZSTEMPEL

Title (fr)
OUTIL DE POINÇONNAGE, MACHINE-OUTIL COMPORTANT UN TEL OUTIL ET PROCÉDÉ DE VERIFICATION DE LA CORRESPONDANCE D'UNE BAGUE D'ALIGNEMENT AVEC UN POINÇON

Publication
EP 2411167 A2 20120201 (DE)

Application
EP 10717498 A 20100323

Priority
• DE 2010000316 W 20100323
• DE 202009004014 U 20090325

Abstract (en)
[origin: WO2010108477A2] The invention relates to a punching tool (9) comprising: a punch (9a) and an adjusting ring (9b) associated with the punch (9a), said adjusting ring can be mounted on a shaft (22) of the punch (9a) counter to an axial stop (23). Said punch shaft (22) comprises a marking (26), at a distance (A) from the axial stop (23) which corresponds at least to the axial thickness (D) of the adjusting ring (9b), said marking remaining remaining visible after mounting the adjusting ring (9b) counter to the axial stop. The invention also relates to a machine tool comprising said type of punching tool (9) and to an associated method.

IPC 8 full level
B21D 28/00 (2006.01); **B21D 28/04** (2006.01); **B21D 28/34** (2006.01); **B21D 37/00** (2006.01); **B21D 37/04** (2006.01); **B21D 37/14** (2006.01)

CPC (source: EP US)
B21D 28/00 (2013.01 - EP US); **B21D 28/02** (2013.01 - EP US); **B21D 28/04** (2013.01 - EP US); **B21D 28/34** (2013.01 - EP US); **B21D 37/00** (2013.01 - EP US); **B21D 37/04** (2013.01 - EP US); **B21D 37/14** (2013.01 - EP US); **Y10T 29/49826** (2015.01 - EP US); **Y10T 83/9476** (2015.04 - EP US)

Citation (search report)
See references of WO 2010108477A2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

DOCDB simple family (publication)
DE 202009004014 U1 20090604; CN 102365138 A 20120229; CN 102365138 B 20150819; EP 2411167 A2 20120201; EP 2411167 B1 20150729; JP 2012521295 A 20120913; JP 5726163 B2 20150527; US 2012042764 A1 20120223; US 9168579 B2 20151027; WO 2010108477 A2 20100930; WO 2010108477 A3 20101202

DOCDB simple family (application)
DE 202009004014 U 20090325; CN 201080013978 A 20100323; DE 2010000316 W 20100323; EP 10717498 A 20100323; JP 2012501130 A 20100323; US 201113240296 A 20110922